

'There's no way I'm getting on a train! Call me a cab!' (Iacobucci, 2016)

'A bus is essentially a giant minivan that continually stops to pick up progressively smellier people' (Friedersdorf, 2010)

1 Introduction

The New Delhi High Court recently stated that living in the Indian capital was akin to being in a 'gas chamber' (Herman, 2015). Hannam (2017) makes reference to Beijing's smog as an 'airpocalypse'. To encourage people out of their cars, governments in nations such as India and China are promoting greater provision and usage of public transport as a way to counteract spiralling levels of personal vehicle related pollution (Peng, 2005; The World Bank, 2012; The Government of India, 2014). According to ITDP (2007) however, the term 'public transport' can, in certain environments, have the same symbolic connotations as a 'public toilet': a communal inconvenience to be endured rather than appreciated.

Building on the findings of Ashmore et al (2018a, 2018b), and by means of deductive thematic analysis using symbolic permutations as themes, this paper examines the stated symbolic connotations of public transport, rail and bus-based, for 48 individuals with similar socio-demographic profiles, across two Meta national cultural clusters. The grouping of the Meta clusters was based upon the Hofstede national cultural indices and comprise a low power differential/ individualistic cultural cluster (consisting of two sub clusters – Anglo and Nordic), and a high power differential/ collectivist cultural cluster (consisting of two further sub clusters – Confucian and South Asian). As symbolism has been identified as a major determinant of mode choice (Steg, 2005), the study aims to understand the degree to which it may act as a barrier to policy transfer and uptake across geographies, within the context of public transport. The findings presented in this paper represent a subset of a broader research programme examining the symbolic connotations of multiple transport modes across different national cultures. Whilst controversial theoretical and normative matters *are* alluded to, the focus firmly remains on applied policy within the context of public transport - understanding the nature and presence of the symbolic barriers that may, for certain groups within a culture, prevent the transfer of sustainable transport policies between nations.

2 Theoretical context

2.1 *The public transport imperative in Asian mega cities*

The issue of terminology and classifications of countries is complex and contentious (World Bank, 2015; Solarz, 2014; Neuwirth, 2017; De Beukelaer, 2014; Khaled, 2017). Solarz (2014) express the view that terms such as the ‘global south’ are ubiquitous in the discipline of development studies, but they are often poorly defined, ideologically weighted and misleading. Khaled (2017) expresses the view that indices to justify global terminological divisions - education, life expectancy, infant mortality, public health, personal income and poverty levels - can vary within countries and between them, irrespective of their ‘development’ status. Noting these concerns and recognising the complexities and contradictions in naming nations as being part of the global north or south, for the purposes of this paper, however, these terms will be used to justify bundles of nations which be seen as possessing *broadly* similar development characteristics. This is a function of necessity in terms of complying with the terminology around policy discussions within the literature.

Governments in cities in the global north have been striving to manage the negative aspects of high levels of motorised traffic for decades. In the Global south, however, rising incomes, rapid economic growth, and the localised mass production of cars, has fostered a speedy and significant increase in car ownership over a relatively short period, making traffic congestion and worsening air quality relatively new problems for governments (Chen et al., 2009; Kan and Chen, 2004; Stead and Pojani, 2017; Siddique et al., 2011; Zhou et al., 2010).

Indian and Chinese conurbations, places experiencing rapid urbanisation and population shift, have been flagged as a particular focus of concern (United Nations 2014). In Indian cities traffic has slowed to a crawl with average speeds of five kilometres per hour (Sanjai 2017). As to air quality, Delhi is already the most polluted city in the world (Safi, 2017). Beijing’s levels of pollution are only slightly lower than Delhi’s (World Health Organisation, 2014; Iyengar and Lipton, 2015). In addition to local concerns, such poor air quality has been predicted to have a considerable effect on the *global* environment. According to Pucher et al. (2007):

Unless the problems of motorization in China and India can be effectively dealt with, the world faces sharp increases in greenhouse gases, accelerating climate change, and rapid depletion of a range of non-renewable resources.

Ashmore et al (2018a) showed that interviewees from certain national cultures seemed to be under considerable pressure to express their family’s economic capacity and social standing

when travelling. Such pressure led to an imperative to make modal choice decisions collectively. This was expanded upon in Ashmore et al (2018b) where it was shown that hybrid or electric cars lacked symbolism in some of the cultures under consideration, and this acted as a barrier to their uptake. This paper extends the research further by examining, for the same groups, the symbolism of public transport.

2.2 *Symbolism as a barrier to the promotion of public transport in different cultures*

To counter the negative aspects of high levels of motorised transport, policies which discourage private motor vehicle usage and promote modes which cause lower or no emissions at source, have long been promoted by governments in the global north. This seems to be less the case in the global south (Pucher et al. 2007; Pojani and Stead 2015a; Stead and Pojani 2017).. In China, until recently, contemporary urban transport policy followed a model promoting car ownership; cities such as Shanghai went as far as banning bicycles to make way for the private car (Mars and Hornsby, 2008). Such policies are now being reversed (Smethurst, 2015; Gao, 2016) with the Chinese Government outwardly supporting urban transport initiatives such as building public transport infrastructure, and promoting its usage (Peng, 2005; The World Bank, 2012). In India, in shifting their emphasis from vehicle movements to people movements, the Federal Government has stated it will support the development of mass transit and encourage non-motorised travel (Government of India, 2014;. Joshi et al., 2017).

Duplicating the practices of cities in the global north, by promoting public transport as a remedial measure to tackle the externalities of rising car usage, may be seen as an example of non-coercive transport policy transfer (Newmark, 2002; Marsh and Sharman, 2009; Dolowitz and Marsh, 2000; Williams and Dzhekova, 2014). Some commentators term this ‘policy mobility’ or ‘policy diffusion’ where due to greater interconnectivity, public policies ‘flow’ around the world, leading to greater levels of knowledge exchange between agencies (Baker and Temenos, 2015). This statement does not imply that policies generated in the global north are superior to those which have evolved in the global south, only that, as pointed out in Prince (2012), largely due to international advisory services, policies tend to flow from the global north to the global south, not the other way around.

Successfully transferring policies aimed at reducing car usage and ownership, from one nation to another, however, may be extremely difficult (Pojani and Stead, 2015b). This may not just be due to issues with city layout, practical differences between modes in a specific geography, or the stage of a nation’s ‘automobility’ or love affair with the car (Alvord, 2000; Bohm et al.,

2006). Some have suggested that the status aspects of the car in mode choice is lessening in developed nations. This is a moot point. Kuhnimhof et al. (2012) see younger Germans as less car oriented than previous generations, yet, Møller et al (2018) were unable to find any indication that the meanings ascribed to the car are decreasing in the younger generation. Delbosc and Currie (2013) believe that the evidence showing that young adults in developed nations have become increasingly less likely to acquire a driving licence is weak and preliminary. They suggest multiple causes rather than single influences.

Problems in transferring policies from one nation to another may, however, also relate to culturally related attitudinal blockages. Culture is defined by Matsumoto and Juang (2012) as the ‘set of attitudes, values, beliefs, and behaviours shared by a group of people’. There are many examples of culture: even by 1952 over 164 definitions had been identified by Kroeber and Kluckhohn (1952). One of these is national culture. National culture has been defined by Hofstede (1984) as ‘the collective programming of the mind that distinguishes the members of one national group from another’. Whilst national culture is a contested topic, it is generally agreed it exists and has an effect on peoples’ choices (Malhotra and McCort, 2001; Koçak et al., 2007; Kim and Lee, 2009; Syam, 2014; Tansey et al., 1990; Oliver and Lee, 2010; Takahashi, 2010; Law and Karnilowicz, 2015; Lee et al., 2015; Syam et al., 2011; Prince 2012).

Within the field of policy research this is an unexplored area. Daniell (2014) states:

There is much potential for developing a more in-depth understanding of national cultures and the impacts that cultural orientations or biases have on the development of public policy within countries and policy transfer between countries.

One such cultural obstacle, the subject of this paper, is modal symbolism. Symbolism or symbolic meaning is concerned with how people, within a social hierarchy, believe third parties perceive and judge them as a consequence of the symbols or ‘signifiers’ they outwardly display (Saussure et al., 1916). The symbols people display within a culture are a complex form of social communication having multiple levels of meaning (Barthes, 1967). Several studies have shown how, in stratified societies, people display symbols to clearly show their social positioning relative to others (Steg 2005; Heffner et al. 2007; Lindemann, 2007; Festinger, 1954; Bourdieu, 1984). A transport example would be a large expensive imported car, purchased not only for practical factors such as comfort and capacity, but also for outward show. The display of outward symbols assists individuals and groups to develop their self-

identities and narratives relative to others, so as to compare themselves based on objective, normative criteria to third parties, within the context of a socially stratified society (Lindemann, 2007; Festinger, 1954). Symbols carry meanings that depend upon one's cultural background. In other words, the meaning of a symbol is not inherent in the symbol itself but is culturally learned (Womack, 2005). Hofstede et al (2010) see symbols as the 'outer layer' of the 'national cultural onion'.

Symbolism is complex because a symbol possesses both a surface meaning, a *denotation*, and a deeper message, a *connotation* (Saussure et al., 1916; Barthes, 1957, 1967). Barthes (1967) posits it is the connotations of a symbol that motivate behaviour. Heffner et al (2007) offer a useful example of denotations and connotations within the context of hybrid vehicles. Whilst at the surface level, ownership of a hybrid demonstrates environmental concern, the more complex connotation of owning a hybrid may be that it shows the owner as being educated, caring, a member of a social elite.

Reiterating Steg's (2005) findings, the connotations of the private car are often positive, suggesting modernity, power, and superiority (Miller, 2001; Belk, 1988; Pojani and Stead, 2015a). In contrast, public transport's connotations can be much more varied. At a generic level, Iacobucci (2016) describes how some people view public transport as a 'turnoff', as it can symbolise social inferiority. Other commentators, however, feel generalising about public transport symbolism as a whole is too simplistic, and suggest different symbolic connotations apply to rail rather than bus-based modes. Scherer and Dziekan (2012) opine that considerable differences in modal share between the public transport modes are driven by a 'psychological rail bias'.

Often it seems metro systems bring prestigious connotations to a city and its inhabitants by symbolising solidarity and progress, a city's final step into the status of modernity (Perkins, 2017; Dalvi, 1986). Bus-based travel, however, is usually depicted in a poor symbolic light. For many, the use of the bus seems to connote being a failure, having few choices (Pojani and Stead, 2015a; The Economist, 2006; Guiver, 2007; Hess, 2012; Fitt, 2018). A great deal of resistance to bus-based systems compared to rail appears to hinge around ideology and emotion rather than major operational differences (Hensher et al. 2015; Ben-Akiva and Morikawa, 2002).

2.3. *Symbolism of public transport in Asian cities*

Differences in the symbolic connotations between rail and bus-based modes could be especially salient in the cities of the global south, where fiscal constraints are pronounced, and bus-based solutions, such as bus rapid transit or BRT, are likely to offer the ‘least expensive option for expanding public transport services quickly and effectively’ (Wilkinson et al., 2011). Indeed BRT systems such as Transmilenio, have acted as a significant catalyst for knowledge exchange programmes between cities in recent years (Wood, 2014).

A number of commentators *have* alluded to the symbolism of public transport in Asian nations, relative to their European counterparts (Van and Fujii, 2011; Kumar et al., 2016). Belgiawan et al. (2014) examined attitudes to public transport in a range of cities, including Shanghai and Utrecht, and found survey respondents in Utrecht had a much more positive attitude to public transport than their Shanghainese counterparts; it was speculated that symbolic factors were playing a key role. Mishra (2016) believes that in India, public transport is a negative symbol for the rich and middle class, a view echoed in Vietnam by Tuan's (2015) research. Van et al. (2014) found that students in a range of Asian cities and countries, would only not buy a car for their future work commute, if public transport became seen as being for the ‘rich’, ‘superior’ and ‘cool’. Joshi et al.(2016) flag how in post-colonial India modes not conforming with borrowed motifs of modernity led to a culture of automobility that prioritised personal mobility over other low carbon alternatives. Joshi et al. (2017) make reference to the ‘historical moorings’ of transit-oriented development, within and outside of India.

As per the global north, in India and China there also seems to be a significant difference between the symbolism of rail modes versus that of bus-based. Rediff (2006) sees the Delhi Metro as a symbol of India’s progress. Williams (2008) calls it a ‘shining symbol of definite progress’. Zhou (2017) similarly sees metro systems as a sign of modernity in Chinese cities. Buses, however, seem to connote strong negative social symbolism, even if this notionally this means it may be possible for someone to be proud of their city’s bus system without wishing to be seen using it. Peng (2005) believes politicians see buses as ‘unsuitable proof’ of their attempts to modernise cities and showcase tangible progress. Banerjee et al. (2010) state many middle-class Indians do not wish to be seen riding a bus. In Chinese cities, Li et al. (2006) note that many people feel buses are a mode of choice for impoverished migrants.

Attempts to upscale the image of buses through bus rapid transit (BRT) systems can sometimes experience little success. Hidalgo and Gutiérrez (2013) suggest that BRT lacks a single

meaning or image and is often still regarded symbolically as a second best to rail alternatives. Indeed Joshi (2012) recounts how the discontinued BRT scheme in Delhi exposed a class divide, where car drivers came to see use of the busway as connoting people whose time was 'less important than that of car drivers'.

If nations are seeking to foster a mass movement away from car usage, however, public transport needs to play a key role because of its carrying capacity. Given this, several key questions are explored in this article. As symbolism affects mode choice, how may, at this point in time, the symbolism of public transport differ between the cultures of the global north (including Australia) and their southern counterparts, in this case India and China. In framing this comparison how might existing national cultural models be drawn upon for clustering, the development of theory, and explanatory purposes? Furthermore, if symbolic differences are seemingly present, how may they vary by mode, between bus and rail, and what role might national cultural imperatives and taboos be playing in creating such symbolic differences? Finally, having identified potential symbolic barriers within a culture, what might be the practical implications for sustainable policy development, adaptation and transfer? [In terms of linking bodies of theory the study can be seen as expanding the symbolic work of Steg \(2005\) by means of Hofstede's \(1984\) global indices so as to explore international transport policy issues. Steg's indices show the presence of symbolism: Hofstede's model offers potential explanatory power as to *why* they may differ across nations.](#)

3 Methodology

3.1 Qualitative method

Given this is an emergent area of research, the first stage was to elicit a significant volume of *rich* information on the symbolism of public transport in different national cultures, so as to build, expand, and strengthen theory, for later testing. This requirement is in keeping with Newton-Smith's (1981) research imperative of theoretical fertility, and lends itself to qualitative research. Qualitative research has been described as highly useful when seeking to understand opaque, intangible drivers of behaviour such as symbolism and culture (Bryman, 2012; Heffner et al., 2007; Coolican, 2009; Karasz and Singelis, 2009; Ni, 2008; Steg et al., 2001; Noppers et al., 2014; Zaltman and Coulter, 1995; Rapaille, 2001). Qualitative methods have been used before in transport studies to investigate the emotional aspects of public transport, as demonstrated in the work of scholars such as Beirão and Sarsfield Cabral (2007) and Guiver (2007).

The qualitative analysis in this paper is abductive, a way of generating strong research hypotheses at a later phase. Thematic analysis has been describe as being highly suited to this task as it is extremely flexible, being able to be used inductively or deductively to straddle different epistemologies (Denzin and Lincoln, 2005) making it suitable for multi-disciplinary work. In this regard the thematic analysis can be seen as acting as a an example of both triangulation and facilitation, in much the same way that Dittmar's (1992) primarily qualitative model, [acted as a further basis for Steg's \(2005\) quantitative examination of symbolism in car use and purchase](#). In doing this this study aims to facilitate further quantitative work at a later date (Ashmore et al, 2017).

[This paper has used an identical method to that flagged and drawn upon in Ashmore et al \(2017\), Ashmore et al \(2018a\) and Ashmore et al \(2018b\). It may therefore be seen as the fourth in a series of papers dealing with the symbolism of sustainable public transport across different cultures and the implications for applied policy and transfer.](#)

3.2 *Sampling – national cultural and within nations*

Buil et al. (2012) stress that two sampling issues are critical when undertaking cross-cultural research: which nations to contrast, and whom should be sampled from within each nation. Each will be discussed in turn.

3.2.1 Sampling across national cultures

Cross-cultural theorists concur that a major split in national cultural characteristics is the degree to which societies rate hierarchy, and the importance of the group over the individual (Schwartz 1999; Inglehart and Oyserman 2004; Trompenaars and Hampden-Turner 1997). Hofstede (1984) sees these differences encapsulated in two of his cross-cultural indices: ‘power differential’ (PDI), and ‘individualism versus collectivism’. [These will be used in this study to expand the findings relating to transport symbolism as described by Steg \(2005\).](#)

The Hofstede (1984) PDI index, describe societies where people accept a hierarchy within which everyone has a position needing no justification. Generally, people in societies exhibiting a large degree of power distance, for example India, China, and Mexico, accept a hierarchical order in which everybody has a place. In such societies social mobility is rare. In low PDI societies such as the United Kingdom or Sweden people strive to equalise the distribution of power and demand justification for inequalities of power. In high PDI societies price and exclusivity are surrogate indicators for power - [publicly consumed goods](#) or visible

symbols (things third parties can see, for example a car rather than a domestic refrigerator) command a price premium over private, and imported goods or overseas ‘brands’ made locally confer greater status than their domestic counterparts (Sharma,2010; Wong and Ahuvia, 1998; Batra et al., 2000; Eastman and Goldsmith, 1999; Piron, 2000; Bagwell and Bernheim, 1996; Doctoroff, 2012). In high PDI societies people are expected to use their power to increase their wealth to make them look as powerful as possible (Hofstede et al, 2010). Symbolism, signalling through symbols, plays a key role in identifying where people sit in the hierarchy and their level of power and must be unambiguous to avoid confusion and inappropriate treatment (de Mooij and Hofstede, 2010).

The most widely analysed Hofstede dimension is individualism versus collectivism (Guess, 2004). This index shows the extent to which the collective’s needs override those of the individual. In collective societies, decisions are made as a group drawing upon the symbolic cues displayed by other groups and their peers (Guess, 2004; Hofstede et al., 2010; Trompenaars and Hampden-Turner, 1997; Burnkrant and Cousineau, 1975; Zhang and Neelankavil, 1997).

A key requirement in collectivist nations is the maintenance of outward dignity or face. ‘Face’ (‘mianzi’ in Mandarin) is defined as an image of self, and crucial in collective societies when maintaining social prestige and power (Goffman, 1955). Loss of face through a show of lesser economic capacity (de Mooij and Hofstede, 2010) or when an individual fails to comply with the requirements placed upon them due to their social position (Ho, 1976), can ‘unravel the...fabric of social relationships essential to a person’s success in society’ (Drake, 2011).

High PDI societies overwhelmingly tend to be collective, whilst low PDI nations incline towards greater individualism. Hofstede (1984), however, felt that the PDI, and individualism versus collectivism indices, explored different phenomena, so despite them being correlated kept them separate¹. The nations of the global south tend to be high PDI/collectivist societies, whereas those of the global north, especially Northern Europe tend to be low PDI/individualistic (Hofstede 1984). Given this paper’s focus on the mega cities of the global south, these measures – PDI and ‘individualism versus collectivism’ - were used in this study for national cultural clustering and (seeming) explanatory purposes. In clustering on the basis

¹ Triandis and Gelfand (1998) took a different line by unpacking the individualism and collectivism indices into separate components.

of these indices, the authors do not claim they are superior to other models or measures, merely a logical starting point.

Not all scholars concur with Hofstede; his indices have their detractors. McSweeney (2002) objects to generalising about the collective at the expense of the individual. Osland and Bird (2000) make reference to sophisticated stereotypes. Nevertheless, Hofstede's work is the most widely cited in existence; three quarters of the significant volume of work in cross-cultural research undertaken in recent decades has used his indices across various disciplines, especially the 'individualism versus collectivism' dimension (Jones, 2007; Ng et al, 2007; Williamson, 2002). Magnusson et al. (2008) concluded more recent cultural frameworks offer little advancement over Hofstede's. In using the Hofstede indices, the authors are not claiming attitudinal homogeneity within a national cultural sample of interviewees. What *is* being claimed, however, is that people from the same nation, possessing very similar socio demographic characteristics, are more likely to have similar views on symbolic imperatives within their culture.

Within this research programme in general, and in keeping with Ashmore et al (2017, 2018a, 2018b), the Indian and Chinese cultures will be termed 'high PDI/collectivist' nations, and respectively referred to as 'South Asian' and 'Confucian' clusters. In terms of selecting cultures to act as a contrast, two from the global north were chosen, and will be collectively described as 'low PDI/individualistic' cultures. They consist of 'Anglo' nations, including the United Kingdom, Australia and the United States, and 'Nordic' nations, including Norway and the Netherlands.² A further advantage to choosing the Anglo and Nordic clusters for comparison is that there has been a considerable body of research into the success of their sustainable transport policies - more than anywhere else. In using these clusters for comparison therefore there is a solid basis to state that, at a locational level, the transport policies of Northern Europe (the Anglo cluster includes the United Kingdom), may be seen as leading, in terms of environmental outcomes (Jakovcevic and Steg, 2013).

The authors are not comparing systems from an instrumental perspective in terms of land use patterns or modal characteristics. The presence of a full mode choice set is enough to qualify a city as one where the study *can source an interviewee*. The work is not contrasting the cities per se but the cultural attitudes of a selection of those dwelling within them, in terms of the

² Hofstede (1984) and Sicinski (1976) both place the Netherlands within the Nordic cluster. Furthermore, Protestant European nations exhibit lower PDI scores than their Catholic counterparts.

symbolic aspects of transport choice. The research is agnostic to the city configuration in doing this, but note that the interplay between the symbolic and the practical is a strong candidate for further research. Steg (2005) separated instrumentalism and symbolism as separate variables; this work sees them as being more closely entwined.

3.2.2 Sampling of individuals within a nation

As to the sampling of individuals within a nation, random sampling is unproductive when examining cross-cultural differences (Buil et al., 2012). As pointed out by Bourdieu (1984) across all cultures, symbolic motivation differs according to ‘vertical’ socio-demographics, such as wealth, occupation, and education, an examination of which lies outside the scope of this article. For this reason this study used purposive sampling to contrast people who are as socio-demographically similar *as possible*, so as to attempt to isolate the impacts of national culture. Ohnmacht et al. (2009) term such a strategy ‘horizontal’ sampling, which subdivides on the basis of factors such as lifestyle, gender, or ethnicity.

The symbolism of public transport *has* been shown to differ within a city by migrant group. Syam et al (2011) examined different ethnic groups’ perceptions of security on public transport in Auckland and concluded that culture helped explain behavioural differences with Asian people having a preference for security cameras due to a greater mistrust of authority than other groups. This analysis did not break down by gender although it has been documented by commentators such as Yavuz and Welch (2010) that gender does significantly affect feelings of safety on public transport. Gardner et al. (2017) flag how harassment and a fear of crime may increase car over public transport use. This raises the issue of future research into not only how different migrant group’s cultures and symbols affect their mode choice in their new country, but also as to how this may differ by gender based on perceptions from their country of origin.

For this study interviewees were selected according to strict criteria. To ensure comparability they needed to come from the more affluent and educated segments of society. Participants had to possess a university degree, speak fluent English, and dwell in a major urban area with a full public transport mode choice set. Their parents must also have both been born and raised within the same country; one of them needed to possess a degree. Moreover, the family must have owned a car for at least ten years. Interviewees needed to be aged between 18 and 50. It is recognised this strategy will elicit only the views of a social elite, but, as discussed, it is

essential to compare ‘like with like’ *as much as possible*, when seeking to isolate attitudinal differences attributable to horizontal variables such as national culture.

The requirement of being university educated may be seen as problematic as the qualification may mean something different between the two Meta clusters - it may be elite in India but relatively common in Norway. The authors see this more as a vertical sampling issue than a horizontal as in low PDI nations, the PDI score increases markedly when moving down the education scale (Hofstede, 1984). It is thus necessary to sample at the more educated and wealthier end of Indian and Chinese society.

At this stage, differences *within* a Meta cluster will not be commented upon. Contrasting India with China, or Nordics with Anglos is not the goal of the research at this point. The focus is purely on the symbolic barriers to transferring public transport policies and systems from low PDI to high PDI environments. Such work, however, would be a strong candidate for further research using the current dataset. Ashmore et al (2018a) showed a stronger imperative in the high PDI/collectivist meta cluster to show economic status when travelling than in the low PDI/individualistic environment. This does not mean, however, that there may not *be* actual differences between the sub clusters. For example the imperative for modesty is potentially stronger in Nordic nations than in the United States. Hofstede et al (2010) in describing the M/F index offer a specific example of a Dutchman being too modest at a job interview with a company from the United States.

3.3 Data collection

The results of this study are based upon 48 interviews each an hour long, yielding 48 hours’ worth of recorded transcripts. Interviews were semi-structured using a previously piloted topic guide. Initially, interviewees were asked general questions about how they and their peers travelled around their city. Next, there followed a short discussion on cultural obligations in terms of showing status when travelling and how this affected decision making within the family unit. The specific symbolic connotations of various modes of transport, including public transport, were then explored. This covered which social groups tended to use which mode, and what might be the consequences of someone choosing the ‘wrong’ mode, in a specific social context. Interviews concluded with a question about what might be the reaction of people within the culture, if someone shifted from a private to public mode, or to a mode less expensive at point of consumption. Skype was the usual interview medium unless a poor internet connection necessitated the use of the telephone. When participants needed

clarification on the physical appearance of a mode, photographs were shown. In cases of a poor internet connection or the telephone being used, interviewees were offered an option of these photos being sent to them via email.

Snowball sampling was used, which resulted in a bunching of interviewees from the following cities: Oslo Amsterdam, Rotterdam, Melbourne, London, Sydney, New York, Chennai, Delhi, Mumbai, Beijing, Guangzhou, Shanghai, and Taipei. [Obtaining rich data from interviewees within these cities offers the potential for case study work at a later date to compare the symbolic values in one city with another, referring to city specific characteristics. This need not even be between nations but could be within a country. This work is grounded in the concept of national culture; it is to be hoped at a later date that cross-cultural models will allow comparisons between cities.](#)

For thematic saturation [twelve interviewees from each Hofstede sub cultural cluster, making a total of 24 for each meta cluster, were deemed sufficient, as per the guidance of Baker and Edwards\(2012\) and Guest et al \(2006\).](#) As noted, the authors in no way imply that twenty four individuals from the high PDI/collectivist or low PDI/individualist clusters are homogenous in their outlook, only that they have been nurtured within differing value systems, and that this may, as a group, discernibly impact the symbolic aspects of their transport choices. Equal volumes of male and female participants were interviewed. Interviews were recorded, transcribed, and coded manually. The consolidated interview transcripts were over 160,000 words in length.

3.4 *Deductive thematic analysis*

Thematic analysis was used as the qualitative method (Guest et al., 2012; Denzin and Lincoln, 2005; Miller and Crabtree, 1992); according to Braun and Clarke (2006) thematic analysis should be the first technique a qualitative researcher learns. The method involves taking interviewee transcripts and allocating blocks of chosen textual data, termed ‘codes’, to *themes* which the data supports. Thematic analysis can be either deduced from prior involvement with theory (deductive confirmatory) or induced from the data (inductive exploratory), or a combination of both (hybrid). As such, according to Boyatzis (1998), it is ideal for allowing positivistic disciplines such as transport planning, to interact with interpretative, for example cross-cultural studies, making it highly suitable for this particular study. In this instance *significant* prior author engagement with the cross-cultural and symbolism theory necessitated a predominantly deductive approach; the public transport related codes presented in this paper

were deduced by the authors and did not emerge from the data. Some inductive work was undertaken within the broader research programme, however, making the overall study 'hybrid' (albeit it a hybrid 'light'), rather than purely deductive, but the findings of this do not apply purely to public transport, and are not discussed in this paper.

The other reason that thematic analysis is a sound choice for this research is because a *single* quote can be justifiably used to develop innovative hypotheses (Vaismoradi et al., 2013): it facilitates theoretical expansion. That said, the authors *do* use the density of a code's recurrence as a proxy for strong difference between the groups. Using both single quotes and quote density to build theory may be seen as 'getting the most' from thematic analysis's flexibility.

Prior engagement with the literature allowed for the development of several broad premises. Among interviewees from collectivist clusters, the authors expected to see a strong symbolic emphasis on differentiation relating to ranking, status, social treatment, clarity of symbol, shame, sanctions and collective decision making. By contrast, in low PDI countries, individualistic clusters, the interviewees were expected to downplay their formal status. It was surmised they would symbolically feel more comfortable being seen using public transport than their counterparts in high PDI societies. Greater indifference or neutral symbolism was expected among the low PDI/individualistic interviewees - a 'who cares?' stance.

This led to nine derived cross-cultural themes, or symbolic permutations, relating to public transport, although there were several more themes dealing with other modes which are not described here:

- 1 Public transport (generic) possessing positive symbolism.
- 2 Public transport (generic) possessing neutral or no symbolism.
- 3 Public transport (generic) possessing negative symbolism.
- 4 Metros/trams possessing positive symbolism.
- 5 Metros/trams possessing neutral or no symbolism.
- 6 Metros/trams possessing negative symbolism.
- 7 Bus-based modes (including BRT) possessing positive symbolism.
- 8 Bus-based modes (including BRT) possessing neutral or no symbolism.
- 9 Bus-based modes (including BRT) possessing negative symbolism.

The codes may appear somewhat clunky. They are, however, an expansion upon the initial two 'positive' and 'negative' categories earlier developed, which have been expanded to

include symbolic neutrality. This added a further level of analysis to the significant coding exercise but it was felt necessary as ‘neutrality’ was connoting different things. In some cases it can connote a feeling of ‘who cares?’ in which case it would not hinder modal take up – ‘nobody is watching’. In an environment, however, where there is a strong symbolic transport imperative, neutrality is useless as it does not meet the societal requirement so is a barrier.

Interview transcripts were coded manually using the coding rules shown in the codebook in Appendix A. As the overall research spanned several modes the codebook was developed as modally generic to allow it to be usable for all transport modes, i.e. it was not just developed with public transport symbolism in mind. When the term ‘public transport’ or ‘bus *and* metros/tram’ occurred in the same sentence, then the text was coded under ‘public transport’; otherwise the text was coded under either ‘bus’ or ‘metros/trams’. Interrater coding reliability (IRR) was quantified using percentage of agreement on presence (see Appendix B for a sample of IRR calculations showing positive symbolism). For the reliability exercise two coders were used - the primary supported by a secondary. Given resource constraints reliability coding was only undertaken on the transcripts from the first interviewees from each cultural group. All themes’ IRR scores were over 70%; given the relative newness of the themes this was deemed acceptable to establish the primary coder as reliable. Thematic validity was established by both reliability coders noticing a code’s presence in any of the groups.

4 Results

Table 1 shows the thematic coding densities for the four cultural clusters of interviewees. To support the thematic coding densities shown in Table 1, and as per Beirão and Sarsfield Cabral (2007) and Guiver (2007), who used inductive thematic and discourse analysis respectively, supporting evidence is offered through strong interviewee quotations for each theme. These quotes are sampled from the contrasting ends of the two meta clusters views so as to build bold theory (Popper, 1969). The authors would stress, however, that they do not believe them to be extreme (Mills et al., 2018), and in supporting the coding densities are representative of the cultural differences at play.

Theme no.	Theme label	Frequency counts per code per 100,000 words			
		Low PDI/ Individualistic		High PDI/ Collectivist	
		Anglo	Nordic	Confucian	South Asian

1	Public transport (generic)	Public transport (generic) possessing positive symbolism.	17.7	15.8	5.0	2.0
2		Public transport (generic) possessing neutral symbolism.	68.7	82.9	17.5	12.0
3		Public transport (generic) possessing negative symbolism.	9.8	3.9	70.0	62.0
4	Rail-based public transport	Metros/trams possessing positive symbolism.	13.7	19.7	7.5	10.0
5		Metros/trams possessing neutral symbolism.	39.2	39.5	15.0	12.0
6		Metros/trams possessing negative symbolism.	2.0	0.0	15.0	28.0
7	Bus-based public transport	Bus-based modes (including BRT) possessing positive symbolism.	15.7	15.8	2.5	2.0
8		Bus-based modes (including BRT) possessing neutral symbolism.	64.8	98.7	2.5	6.0
9		Bus-based modes (including BRT) possessing negative symbolism.	23.5	27.6	55.0	96.1

Table 1: Public transport symbolic coding densities – generic and sub modal.

Boyatzis (1998) feels that within thematic analysis itself, the quantification of coding densities is acceptable and that by measuring thematic coding density, the researcher is not drifting into more in depth qualitative techniques such as content analysis. Guest et al. (2012) go further than this, not only by claiming thematic coding frequencies and densities can be utilised as a proxy for the strength of a phenomenon between different groups, but also in hypothesis testing, provided there has been an rigorous implementation of the prescribed method.

Quotes are presented in the format of national cultural group, cultural group interviewee number, city of abode, gender, and age. There was no requirement to present an even spread of quotes: the emphasis was on presenting the strongest quotes even if these came from a

handful of interviewees, or if one cultural group's quotes predominated over others. In offering quotes, where colloquialisms are used they are placed in inverted commas (University of Melbourne, 2012).

4.1 *Low PDI/individualistic interviewees*

Overall, the interviewees from low PDI/individualistic cultures saw public transport generically as being just something 'everybody uses'. They seldom mentioned social connotations:

The public transport is used by everyone (Anglo 9, London, F, 48).

No there are no strict rules. Anyone uses the bus or the tram (Nordic 4, Oslo, F, 28).

In contrast, using a car within the inner city was often seen by the low PDI/individualistic group as being symbolically negative:

I think it would be embarrassing for people who thought that people shouldn't use public transport for status reasons. I mean is that why people drive? I'd turn it upside down and say people driving half a kilometre in a car is embarrassing (Nordic 2, Oslo, F, 37).

In addition, within their cities, if people eschewed public transport for an expensive vehicle, the group felt it displayed a tendency towards 'showiness' - a desire to 'stand out' and demonstrate purchasing capacity. Such values were felt to not be aligned with their peer group's values or the prevailing culture of their city:

If someone had money and they began doing more ostentatious things like stopping using the street car and driving a BMW to work then, yeah, people would say... 'well, yeah, we know you've got money but there's no need to show it off or that sort of thing.' There's no benefit to the person to show it off. In fact it's the opposite. We'd think the guy was insecure. It's like having to make up for something if you know what I'm saying (Nordic 7, Amsterdam, M, 35).

For some interviewees from the low PDI/individualistic cultures using public transport connoted being able to afford inner-city real estate:

But certainly the richer places in Sydney tend to have the better transport links. If I can catch public transport it means I live in a better suburb so...I'm more likely to be wealthier. (Anglo 4, F, Sydney, 32).

The less well-off people tend to only be able to afford property that is a long way from the city centre where the public transport is poor and so they're stuck with having to have a car, with driving long distances every day in heavy traffic, because that's the sort of circumstances they have to suffer....they can only afford a house miles away. (Anglo 6, Melbourne, F, 49).

There's no real stereotype for people who use public transport other than the fact that they live in the inner cities. So they are the higher educated and better off middle class (Nordic 9, Amsterdam, M, 42).

Breaking down the symbolism by mode, the interviewees from Anglo and Nordic clusters saw some positive connotations in using metro or tram systems:

Coming to London and using the tube is like a rite of passage. It's exciting. In London most people travel by tube, status doesn't come into it (Anglo 9, London, F, 48).

You've seen the picture of the king of Norway on the tram in the 1980s? He was going up there to ski, mixing in with everyone else, and nobody even noticed...people thought it was great (Nordic 4, Oslo, F, 28).

In keeping with their general views on the symbolism of public transport, the interviewees from the low PDI/individualistic cultures overwhelmingly felt that using a metro system or tram connoted very little, was symbolically irrelevant. In their cities, rail-based public transport systems were desirable normalisers:

In NY or Washington DC the subway is a leveller (Anglo 2, F, New York City, 28).

Some interviewees from the low PDI/individualistic cultures saw positive symbolism in using the bus from the perspective of being self-sufficient or modest.

If a new girlfriend came to my parents' house for the first time and got off a bus then they'd appreciate she had come independently. That would be expected and appreciated. They wouldn't think 'good grief, it's a poor person getting off a bus!'

No, it's not that. There are social symbols to identify people but how you arrive generally isn't one of them (Anglo 7, London M, 44).

If I was hiring a lawyer and he arrived on a bus I would be delighted. I would not judge his professional ability (Nordic 1, Rotterdam, M, 48).

But again, for this group, the largest sentiment regarding bus use was symbolic irrelevance. People just travelled on buses because that was the mode that served where they lived.

No, of course my family wouldn't be ashamed of me using the bus. There's nothing wrong with the bus. You just use it if you aren't served by a train line (Anglo 4, F, Sydney, 32).

If I saw a man in a suit on a bus, then I wouldn't look twice (Nordic 6, Amsterdam, M, 41).

There isn't much of a distinction between people who use trams or buses (Nordic 9, Amsterdam, M, 42).

The premise of bus rapid transit (BRT) upgrading the symbolism of the bus, by aping the characteristics of a rail system, was accepted by one interviewee from the low PDI/individualistic cultures.

I think a true dedicated BRT would be seen symbolically higher than normal bus travel (Anglo 8, London, F, 32).

The bus-based modes, however, were the only modes where the low PDI/individualistic interviewees seemed to begrudgingly admit the presence of negative symbolism, even in cities. Often this was due to a perception that people may be captive to the mode for reasons of price, or that they lived in areas containing cheaper housing. Nobody in this group, however, stated that they or their peers would judge anyone negatively for using a bus.

I think the only thing some people think is slightly lower is the bus. Buses generally are for the traditional areas that weren't supplied by the tube. They used to be poorer areas before they gentrified so you might see more ethnic minorities on a bus but it would still be a mix. Nobody would not use the bus if it was the best way to get to work (Anglo 9, London, F, 48).

The buses serve the areas of the cheaper housing, and they seem to show that you don't have complete choice, that you have to use the bus (Nordic 10, Rotterdam, F, 33).

4.2 *High PDI/collectivist interviewees*

In comparison the interviewees from high PDI/collectivist nations largely described public transport in a negative light, symbolically being for those *lower* ‘in the pecking order’. They stated that many car-owning families would wish to avoid public transport not only for practical reasons, but also to lower the risk of being socially misclassified.

My mum’s partner in business, she would never use public transport. She thinks the car shows off her financial and social status and that public transport is for poor people (Confucian 7, Guangzhou, F 35).

If people know you have a car and you are on the public transport then sometimes you get embarrassed, especially if you are working for a good company... your employers and colleagues wouldn’t be embarrassed but they’d be judging you (Confucian 12, Beijing, M, 25).

Suppose a friend and I are going to a wedding party. Some friends might come by public transport and other friends might take their private vehicles. It would be the tendency of the people who came on the public transport to stick together all night. Some people will talk to you very politely to try to get a ride home. But mostly they will try to avoid connecting with you (South Asian 1, Delhi, M, 29).

Better to put up with ... the horrible air than to be judged the wrong way in society (South Asian 6, Mumbai, M, 32).

Some interviewees from the high PDI/collectivist cultures felt that symbolically it would be ‘okay’, and therefore acceptable, for wealthier groups to use the metro on certain occasions:

At least take a metro or taxi, or take a company car...the car will add value for the meeting. It shows something (Confucian 1, Shanghai, M, 36).

The metro has broken down the status barriers. It’s the one mode of public transport that even the high status people don’t mind using. The convenience supresses the snobbery (South Asian 8, Delhi, F, 48).

Often, however, the high PDI/collectivist group described the presence of negative symbolic connotations for rail-based public transport within their culture. Metros and trams were often stated as being, for their peer group, modes for the ‘wrong sorts of people’:

I know a few people who won't use the metro as they don't want to be seen travelling with the smelly people. It's a bit embarrassing (Confucian 6, Beijing, F, 31).

To increase my workout I decided to use the metro instead of my car. And my colleagues they were saying 'why have you started using the metro?' After three weeks I began using the car again and my colleagues were saying, this may sound absurd but, they said 'Oh, you are a big man now, you are again bringing the car.' What do I mean by this? I mean if someone is using a car he is superior. If he is using public transport he is inferior. This is the mind-set even in the qualified people. They are feeling shameful that I am coming with the low grade clerks from the office (South Asian 1, Delhi, M, 29).

One of the interviewees from the high PDI/collectivist group stated that among their peers, there were people who had travelled to cities in the Global north and used rail transit, but refused to do so, for symbolic reasons, in their home cities. This suggests that people's symbolic judgements are relative or flexible: when in other cultures, they seek out normative influences from those they see as their peers:

My flatmate will use public transport when she visits London. She's wealthy but she wouldn't use it in Beijing. She thinks it is the thing people do in London, that the 'right sort of people' use it (Confucian 6, Beijing, F, 31).

Across the interviewees from the high PDI/collectivist cultures travelling by bus was overwhelmingly seen as connoting negative symbolism – lack of affluence, being a poor migrant, possessing little choice. Many went as far as stating that using the bus in certain social and commercial situations could damage someone's reputation, constitute 'social suicide, and, through detrimental gossip, lower a family's perceived financial health. This seemed especially the case for certain trip purposes, for example when families came together to discuss marriage union, or when the travel was in a business context and might be seen by a potential business partner, client, or colleague:

A family who is known to be rich...the whole family on the bus? People would be 'what happened?' It would be shocking for people to see... (Confucian 12, Beijing, M, 25).

If the man got off the bus outside the girlfriend's parent's house, people would say, 'this guy, he's not doing too well'. Maybe her parents would try to find another

boyfriend. As long as they know you have money, that's alright. But they would try to persuade you to buy a car as it's not good for you to be seen using the bus everyday...strongly persuade if you are marrying the daughter. (Confucian 1, Shanghai, M, 36).

If I had gone to a meeting of this nature in a suit and arrived by bus, and been seen by the person I was meeting, then he wouldn't say anything, but he would probably think 'What's wrong with this guy? Why has he taken a bus, is this reflective of something more, can I be doing business with him?' He will think that if I am representing a half a billion dollar company and the company cannot provide me with transport that meets the level of status I am supposed to be at, it is a poor reflection of the company I am supposed to be representing and therefore it poses a question in his mind of "is this is a company I would like to do business with?" (South Asian 10, Mumbai, M, 45).

Say for example that two families are meeting for the first time to discuss an arranged marriage. And one of them arrived at the hotel where the meeting was in a Jaguar, and the others arrived by bus, and the Jaguar family saw them. Oh, that situation would play out horribly. No, if this happened by some miracle, the parents in the rich family would be livid. It would be seen as desperately insulting for the rich family (South Asian 9, Delhi, M, 48).

The idea that building a BRT upgraded the symbolism of the bus was not accepted by the interviewees from the high PDI/collectivist nations. BRT was 'still a bus'. Unless travelling by BRT was differentiated clearly through the pricing mechanism as being more expensive than a car trip, the high PDI/collectivist interviewees felt it would continue to suffer from all the negative connotations of regular bus travel:

I think that BRT may not be good enough for upper middle class people in Delhi. Metro is definitely considered more 'high status' than BRT (South Asian 5, Delhi, F, 27).

If you are taking a bus, you belong to a lower section of society that cannot afford a car. A BRT would be worse than a metro. Going in a metro has some dignity. But if you are taking a BRT everyone will say you are a greedy person, you want to save your money...BRT gives no extra status. I will think that someone doesn't belong to my class if they are on a BRT. It will be seen as the same as an ordinary

bus unless the prices are much higher, comparable to the cost of fuel, using your own vehicle (South Asian 1, Delhi, M, 29).

5 Conclusions and recommendations

When describing the symbolic meaning of public transport within their cultures, significant qualitative differences were observed between the low PDI/individualistic and the high PDI/collectivist interviewees. Notwithstanding that these differences are not static but dynamic, the authors feel that there is a strong justification for expanding their research programme, from initial broad premises gleaned from theory, into more nuanced hypotheses facilitated through thematic analysis. This will allow the development of attitudinal questionnaires for quantitative testing among the population of interest. By adding socio demographic questions to the survey instrument, it will also be possible to explore vertical differences *within* a culture. [This would replicate the work of Steg \(2005\) across a range of nations for a mode other than the car, but, in this instance the prior findings offered in this paper, would help indicate why quantitative differences may be seen across national samples.](#)

[As noted in section 2 comparing the cities of the global south and north is contentious and tricky.](#) That said, the qualitative differences shown within this paper raise concerns relating to sustainable transport policy development within the high PDI/collectivist cultures of India and China. It would appear that remedial transport initiatives that have proven successful in low PDI/individualistic cultures may encounter significant symbolic barriers if directly imported into high PDI/collectivist nations. It seems unlikely that both the emergent or established emergent middle classes of the global south will embrace the idea of switching from relatively-recently acquired, private cars, to public transport, not only for practical but symbolic reasons. In their highly tiered societies the use of public transport modes, for certain trips, seems to connote being unable to afford a personalised mode. Furthermore, whilst within the high PDI/collectivist cultures *some* wealthier people may embrace metros due to them having progressive connotations, the prospect of anyone from their social class being seen using a bus-based system, even if it travels along a BRT corridor, seems slim. Regardless of the culture, shaking a bus-based system's image as the 'loser cruiser' (Fitt, 2018) seems to be a challenge. Given the above, the authors would suggest several symbolically-related policy thrusts to encourage the uptake of public transport within the high PDI/collectivist societies. The first entails accepting the positive symbolism of metro and tram systems as a given, and to provide them when they can be afforded. The literature stresses that rail-based modes often connote

modernity; nowhere is the same assertion made for bus-based modes. If the middle class in Indian and Chinese cities see metro systems as conferring respect upon them, and their city, there is no reason not to tap into this emotion if capital and operating subsidies do not present an insurmountable hurdle.

Metro and trams systems are, however, considerably more expensive to build and operate than bus-based systems. Therefore, in instances where rail modes are unaffordable or bus systems are mandated by a funding agency, a second policy option is to further tier the offering of the bus services. This would be done by making clearly branded services premium offerings by means of facilities such as Wi-Fi. These services would be aimed at attracting car commuters keen to differentiate themselves from people who are captive to buses due to income constraints. One way of ensuring that metros and some premium bus services are seen as exclusive is to visibly price them in excess of a private car trip. This very solution is noted in Woolley (2011):

The status dimension of public transit creates dilemmas...there is a trade-off between providing transport services to the truly needy and creating services that will be appealing enough to get middle class commuters out of their cars. Airlines know that people are uncomfortable with the compression of social distance forced by travel. That's why there is a curtain between first class and the rest of the plane...would buses be more appealing if there were first class?

Such a solution raises questions of social equity. Is the purpose of the public transport system to attract people out of their cars or to improve the experience of those captive to it? Is improving the symbolic value of a mode likely to trade off against requirements to provide affordable accessibility to as many people as possible? These are questions policy formulators may wish to explore.

The final policy option would be to focus on modifying normative influences, by developing targeted marketing campaigns to raise the symbolic profile of public transport as a whole. Promotional messages could stress that metros, trams, and buses, are how many affluent people in the global north *choose* to get around. Taking the words of Mayor Penalosa of Bogota, and embedding them into social marketing campaigns may prove of use:

A developed country is not a place where the poor have cars. It's where the rich use public transportation...an advanced city is not a place where the poor move

about in cars, rather it's where even the rich use public transportation (City Atlas, 2018).

The interviewee quotes within this paper suggest further themes that can be confirmed and developed using formal inductive thematic analysis. One is the symbolic role of transport choice on marriageability and careers, what might be described as the conservation of wealth within a social tier. Another could be the interplay between the practical and symbolic aspects of transport choice; what are the time and inconvenience thresholds for each mode where it is obvious that genuine choice has ceased and necessity has taken over? A third topic would be the mechanism by which individuals are sanctioned by their family and peers for deviating from symbolic transport imperatives, violating symbolic 'taboos'. A fourth would be city variations regarding symbolic norms within a nation; this could be done through detailed case studies of a city in the global south with one city in the global north. A final inductive theme concerns what has been described as the need for a group to spend to the maximum of their collective purchasing capacity, to avoid shameful allegations of parsimony or a risk of social misclassification.

The Hofstede indices (1984) used in this paper for clustering, do not significantly differ by gender. Hofstede makes clear that, generally speaking, for societies to function both sexes need to adhere to cultural norms, and as such, within the Hofstede scores, neither the PDI, nor individualism versus collectivism are seen to differ horizontally by gender. In contrast this is not the case for occupational groups where scores *do* vary vertically. Practical issues such as safety on public transport, however, and how the perception of it may differ [between people of different genders](#), in contrasting environments such as Delhi, Beijing, London or Oslo, and how these perceptions may be driven by symbolic cultural norms, warrants further study. [Quantitative work will allow researchers to examine if, when it comes to transport choice, the differences between cultures are stronger than between women and men.](#) [Citing specific cities raises the prospect of using the current dataset to undertake city to city comparisons at a later date.](#) [As stated earlier, this need not even be between nations but could be within a country.](#) [The current dataset would allow the work to be reframed in this way although some form of justification as to why value sets differed between cities would be needed.](#)

This paper raises significant concerns for those seeking to promote sustainable transport in the mega cities of the global south. It seems that for people dwelling within the highly stratified societies of India and China, in some instances, it may indeed be better to put up with 'horrible air than to be judged the wrong way in society'.

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Appendix A: Thematic codebook

Themes 1 (Public transport), 4 (Metros/trams), 7 (Bus-based modes)*	Mode positive symbolism.
A definition of what the theme concerns	Mode connotes positive symbolism within a culture.
A description of how to see when the theme is occurring (how to flag it)	When interviewees from a particular culture flag that, for someone of their social group, a mode would be seen as appropriate, viewed well by their peers, worthy of their cohort, correctly showcasing the group to which they belong. When it is stressed that people would wish to use this mode for the reason it shows them, and their 'in group', in a positive light, presents them correctly. When using the mode in question would lead to society understanding who the user and their group, 'are'. When friends, families, colleagues, peers, would encourage someone to use this mode due to the image it presents. When it is stressed that using this mode would lead to positive consequences in terms of treatment from society. When it is stated that generally using this mode would be 'seen well'.
A description of when the code should not be used	When positive practical reasons are stressed. The positivity should only apply to the <i>symbolic</i> connotations.
Examples both positive and negative to eliminate confusion	<p>Positive (code):</p> <p>'This mode of transport is seen favourably by those in my culture, definitely in my group. People would applaud you for using it – it would say good things about you.'</p> <p>'Your parents would love you using this mode as it would demonstrate something positive about the family.'</p> <p>'Yes, this mode shows people care about the environment, have a degree of education and involvement in the debate.'</p> <p>Negative (don't code):</p> <p>'It's a great way to get around. You can stay dry.' (Practical)</p>

*For all of the public transport codes when the term 'public transport' or 'bus *and* metros/tram' are used in the same sentence, then the text should be coded under 'public transport'. Otherwise the text should be coded under either 'bus' or 'metros/trams'.

Themes 2 (Public transport), 5 (Metros/trams), 8 (Bus-based modes)	Mode neutral or no symbolism.
A definition of what the theme concerns	Mode connotes nothing within a culture.
A description of how to see when the theme is occurring (how to flag it)	When people express that the ownership or use of the mode has no symbolism, either positive or negative. When it is said that normative influences such as advertising or friends never mention the mode as a social marker. When people state that nobody would care or form a judgement about someone who used this mode. When there are no reference points by which to judge the mode symbolically. Code this even if the <i>ramification</i> is neutral <i>or</i> negative.
A description of when the code should not be used	When practical reasons are stressed for the indifference. The neutrality should only apply to the symbolic connotations.
Examples both positive and negative to eliminate confusion	<p>Positive (code):</p> <p>‘People don’t care – it doesn’t say anything.’</p> <p>‘Ah, if you were to tell me that the person could still afford an expensive petrol car, but chose to buy this because they cared about the environment, then I would think differently. But I know nothing of these things.’</p> <p>‘The fact that it says nothing would mean that your client would be confused about the success of the person they were hiring’. (Neutral symbolism with negative ramifications).</p> <p>‘Who cares if people travel by bus?’</p> <p>Negative (don’t code):</p> <p>‘To be honest the bus and the train take about the same time, so you could use either’. (Practical not symbolic).</p>

Themes 3 (Public transport), 6 (Metros/trams), 9 (Bus-based modes)	Mode negative symbolism.
A definition of what the theme concerns	Mode connotes negative symbolism within a culture.
A description of how to see when the theme is occurring (how to flag it)	When people state that the mode portrays the owner or user in a negative light. When interviewees flag that, for someone of their social group, a mode would be seen as inappropriate, viewed poorly by their peers, be viewed as beneath their cohort. When it is stressed that people would not wish to use this mode purely for the reason that it showcases them and their ‘in group’, in a poor light, presents them incorrectly in a social context. When using the mode in question would lead to society misinterpreting who the user and their group, ‘are’, and treating them inappropriately. When friends, families, colleagues, peers, would discourage, even prevent, someone from using this mode, due to the image it presents. When it is stressed using this mode would lead to negative consequences in terms of treatment from society. When derision is expressed towards those who use this mode.
A description of when the code should not be used	When negative practical reasons are stressed. The negativity should only apply to the symbolic connotations. In addition, when there is a neutral connotation having a negative ramification (this should be coded under neutral symbolism).
Examples both positive and negative to eliminate confusion	<p>Positive (code):</p> <p>‘In my culture this mode of transport would show your family in a poor light. They would discourage you from using it, as it would not play well for the family in social dealings’.</p> <p>‘This is a mode for lower class people.’</p> <p>‘Oh no, this is a showy mode. In our culture you are supposed to be discreet about displaying your wealth or status.’</p> <p>Negative (don’t code):</p> <p>‘This is a bad mode – it takes a long time to get to your destination.’ (Practical not symbolic).</p> <p>‘It means nothing. People wouldn’t treat you well.’ (Neutral connotation with negative ramifications).</p>

Appendix B: A sample of interrater coding reliability (IRR).

Code 1	Public transport (generic) possessing positive symbolism within a culture			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	2	1	0	0
Number of times primary coder saw it	2	1	0	0
Number of times secondary coder saw it	3	1	0	0
Percentage agreement on presence	80%	100%	100%	100%
Code 4	Metros/trams possessing positive symbolism within a culture			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	1	0	0	2
Number of times primary coder saw it	1	0	0	2
Number of times secondary coder saw it	1	0	0	2
Percentage agreement on presence	100%	100%	100%	100%
Code 7	Bus-based modes (including BRT) possessing positive symbolism within a culture			
	Anglo 1	Nordic 1	Confucian 1	South Asian 1
Number of times both saw the code present	2	2	0	0
Number of times primary coder saw it	2	2	0	0
Number of times secondary coder saw it	2	3	0	0
Percentage agreement on presence	100%	80%	100%	100%